Net Ecological Benefit

Presentation to Joint Legislative Task Force on Mitigation

Dave Christensen

September 10, 2019

DEPARTMENT OF ECOLOGY
State of Washington

We manage water resources to meet the needs of people and the natural environment, in partnership with Washington communities.

Statutory context

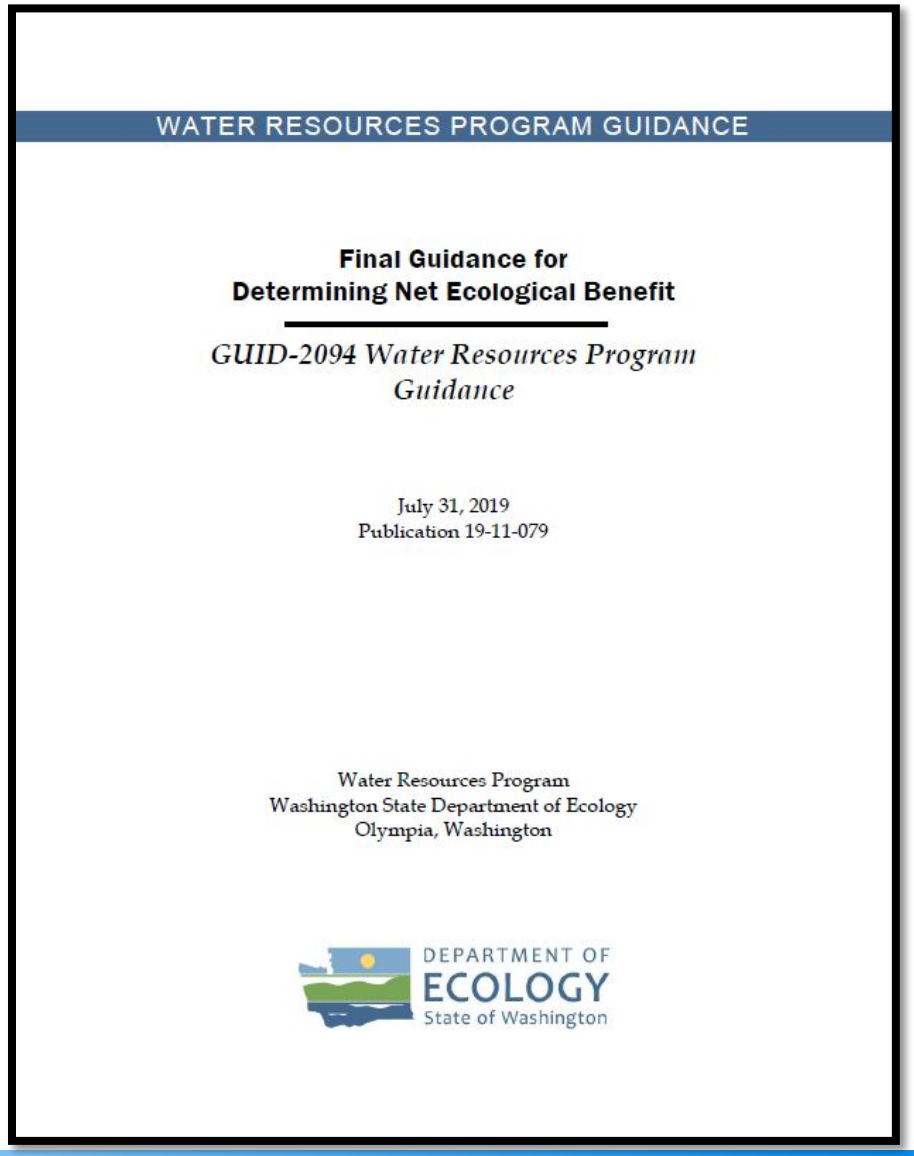
- RCW 90.94.090(8) Pilot project mitigation sequencing
  - Avoid impacts
  - Minimize impacts, **which result in no net detrimental impacts** to fish and related aquatic resources
  - Compensate for impacts **by providing net ecological benefits** to fish and related aquatic resources
- Must be in the water resource inventory area
- Through in-kind or out-of-kind mitigation, or a combination
- Improves the function and productivity of affected fish populations and related aquatic habitat

Out-of-kind mitigation

"Out-of-kind mitigation may include instream or out-of-stream measures that improve or enhance existing water quality, riparian habitat, or other instream functions and values for which minimum instream flows or closures were established in that watershed."

2019 Ecology Guidance

- Published in July 2019
- Update from 2018 “Interim Guidance”
- Received significant input from watershed stakeholders
- Public comment on draft final
- Two specific goals:
  - Guidance for groups planning under chapter 90.94 RCW
  - Pilot projects under RCW 90.94.090


WATER RESOURCES PROGRAM GUIDANCE

Final Guidance for Determining Net Ecological Benefit

GUID-2094 Water Resources Program Guidance

July 31, 2019
Publication 19-11-079

Water Resources Program
Washington State Department of Ecology
Olympia, Washington

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Process in developing final guidance

- Interim Guidance for Determining NEB issued in June 2018
- Sought feedback on Interim Guidance in October 2018
- Public comment on the draft Final Guidance May-June 2019
- Received 34 public comments
- Made final changes and published in July

Technical Support

Technical Supplement: Determining Net Ecological Benefit

Stephen L. Katz[1], Hal Beecher[2], Michael Brady[3], Joseph Cook[3], Kiza Gates[4], Julie Padowski[5], George R. Pess[6], Mark D. Scheuerell[6] and Jonathan Yoder[3 & 5]

Prepared for the Department of Ecology Water Resources Program
Coordinated by the State of Washington Water Research Center
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STATE OF WASHINGTON
WATER RESEARCH CENTER

March 2019

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- Partnered with the Washington Water Research Center (WSU, WDFW, NMFS)
- Contrasted several approaches:
  - Habitat Function Substitution
  - Habitat Substitution for Specific Species
  - Fish Abundance
  - Fish Production
- No single “best method” - all have pros and cons, depending on context
- Includes a “decision tree” based on data availability

Overview of Net Ecological Benefit

- *First:* Demonstrate that water offset projects were not reasonably attainable
- *Next*: Provide a structured and transparent evaluation for Ecology to use in Net Ecological Benefit analysis
- Quantitatively compare any negative habitat and instream resource impacts of the proposed withdrawal(s) to the benefits from proposed mitigation to habitat and instream resources

Specific elements to include

- Describe any ecological impacts that are not offset through in-place and in-kind replacement of consumptive water use
- Evaluate impacts and offsets based on a detailed hydrological analysis, conceptual model, or numerical model
- Document financial, institutional controls, and other assurances that the mitigation will be fully implemented and remain in place for the full duration of the new water use (likely in perpetuity)

Specific elements to include (continued)

- Monitoring and evaluation plans that describe or detail maintenance needed to ensure lasting benefits
- Contingency plans or corrective actions to be taken if goals and measures are not achieved
- Information that describes the level of support for the proposed mitigation pilot from tribal, state and local resource managers (which may be in the form of letters of support or agreement)
- Document scientific sources and methods of analysis

Key Takeaways

- The legislature defined “Net Ecological Benefit” as project proposals that improve the function and productivity of affected fish populations and related aquatic habitat
- Ecology’s guidance identifies information that will be used to make the NEB determination
- NEB is not a formula, but instead relies on available data, ecological context and local expertise

Questions?
Thank you for your time!

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Water Resources Program

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